

**PROBLEM AND OBJECTIVE
NARRATIVES**
(from September 14, 1995 workshop)

CALFED/683

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B-000528

Problem Statements**WATER SUPPLY PROBLEMS**

1. Lack of understanding of system yield for water managers is not a problem. Public perception and understanding is the problem.
2. There should be a statement recognizing the interrelationship between Water Supply and Water Quality. Water professionals consider water supply to be both quantity and quality.
3. A.2.a.3. and B.3. (Environmental Needs) These statements do not distinguish between in-Delta and out-of-Delta impacts.
4. B.1. Pipelines are also vulnerable due to earthquakes and flooding.
5. B.2.a.2. -- If users assume that firm yield is the base case unpredictability not a problem. Still could improve on maximizing supply. Focus should be on maximizing efficiency.
6. There is a lack of understanding of needs. The problem can be described as an uncertainty of demands for a specific supply.
7. Regarding the scope - the problem statements seem to make the Delta water supply problem responsible for whole state.
8. There is no channel capacity problem listed. Focus more on in-Delta problems.
9. Change the introduction. Acknowledge that resources have adapted to the system.
10. Add a box for upstream water needs on the Sacramento and tributaries to the problems and objectives.
11. The problem statement seems to say water supply is uncertain; should look to allocation needs. The problem is an allocation problem among users. Needs are uncertain among users.
12. Hydrologic uncertainty is still a major uncertainty. We should reserve margins for the uncertainty of long-term hydrologic trends, such as global warming.
13. The descriptors are too general. The true concerns expressed in Workshop 1 have been lost. There is no sense of the significance of the problems.
14. B.2.a.1. - Revise to state that agricultural water agencies cannot plan for efficient water use.

Problem Statements

15. A.2.a. - There are shortages for agriculture in most years not just dry years.
16. The water supply problem is the balance mismatch between supplies and needs.
17. A.2.a.3. - The problem with environmental needs is the constraints south of the Delta rather than "export problem."
18. "Needs" implies inflexibility - use "demands."
19. Problem Statement, 2nd line, instream demands are not growing, we are finally recognizing and understanding what the instream needs are.
20. The industrial supplies in the Delta and for export are not included.

VULNERABILITY PROBLEMS

1. The levee maintenance program is running out of money.
2. The problem is not "poor levee maintenance." The problem is when there is no levee maintenance.
3. The relationship of dredging to levee vulnerability is inaccurate. Dredging does not destabilize them, it rebuilds them.
4. Land subsidence drives the need for levees. List as a cause.
5. Siltation reduces channel capacity, destabilizing the levees.
6. Failure of west Delta levees would cause a permanent burden on water supply.
7. Rework the description of water supply vulnerability. Toxic spills are part of vulnerability, but not consistent with "catastrophic inundation." "Accelerate" is not the correct word for salinity intrusion following a levee failure.

ECOSYSTEM PROBLEMS

1. A.3.b. - Lack of open-ended sloughs is not a problem.
2. A.3.b. - Lack of quality habitat in the sloughs is the problem.
3. A.2. - How much is shaded riverine aquatic habitat a problem in the Delta or upstream.

Problem Statements

4. A.6.a. - Exports, diversions, impoundments, and reintroduction the wrong place are causes of the lack of olfactory cues.
5. Woody debris is part of both riparian (B.3.) and shaded riverine habitat (A.2.).
6. Expand on the listing of problems under the species problem (C).
7. A.5.c. - Entrainment is a big problem; identify it more specifically.
8. There is a question about whether smelt need transport flows.
9. Historically there was a large population of beavers that constructed diversions in the Delta as humans do now.
10. Marsh restoration will encourage mosquitoes.
11. A.7.b. - Toxics issue is serious (it is not a "may").
12. There is a lack of hard information about many of these problems.
13. Toxics may not be as serious - recent studies show that toxic pulses do not coincide with fish populations.
14. Water hyacinth removal using 2,4-D is a problem.
15. We need to keep in mind why we are restoring the habitat. The problem statement does not capture the loss of biodiversity or the loss of ecosystem integrity.
16. Need consistency in use of "may."
17. Use the phrase "food web" not "food chain."
18. A.7.c. is a cause. Introduced species have replaced the native food web species.
19. A.1. and A.1.a. - the inclusion of salmon as examples makes these statements inaccurate. Remove the examples.
20. In-channel Delta islands play a unique role in the habitat. Their decline should be included as a problem.
21. The miles of channels in the Delta have increased.
22. Toxic levels in sediments are low.

Problem Statements

23. Boating (turbulence, hydrocarbons, and wave wash) degrade the habitat.
24. Waterfowl and crane habitat types need to be clarified.
25. Don't use "may."
26. Use "can" instead of "may."
27. Some local structures can cause predation.
28. If there is uncertainty related to a problem, include it now and remove it later. It will be hard to add problems in the future 27. Don't lose sight of species and their needs.
29. There are value judgments included in many of the problem statements. Food web and predation are simply different values placed on the same activity.
30. Habitat approach makes sense, but you need to include habitat niches for specific species.
31. The level of detail is important (too much is bad) to maintain flexibility of solutions ("predation" versus "predation at structures").

WATER QUALITY PROBLEMS

1. Salt from the west side of the San Joaquin valley is a problem for users of Delta water.
2. Water quality of the supply source may make it impossible to meet industrial discharge (NPDES) standards.
3. Clarify which water quality standards are referenced.
4. Water quality standards need to cross-reference to ecosystem quality.
5. Be more specific - mention THM's, bromides.
6. It is inappropriate to include vegetation under water quality.
7. Water quality problems fall into three categories: (1) inadequate or nonexistent standards; (2) standards being violated; and (3) problems from the pre-standard era (mercury).

Problem Statements

8. Distinguish between TOC as a problem for water treatment and a benefit for the environment.
9. Is the problem insufficient water quality or that it must be “managed to meet beneficial uses?”
10. Refer to the “Delta” or “Bay-Delta” consistently.

WATER SUPPLY OBJECTIVES

1. Add industrial water to major objectives, since they are not necessarily covered by urban statements.
2. Clarify why the statement says "meet the needs" of in-Delta users and "meet the reasonable needs" of export users.
3. The objectives statements do not reflect the needs of upstream users.
4. Further qualify the objectives. The descriptions are too broad.
5. A.1.b. -- 1 & 2 say "maintain", 3 says "provide"; all should say "provide."
6. Add in-Delta urban supplies to A.1.
7. Reduce the imbalance between supply and need.

VULNERABILITY OBJECTIVES

1. Dredging is not a cause of levee failure.
2. There is a conflict between levee maintenance and habitat maintenance. They should be addressed together.
3. There should be an objective for restoring the elevation of Delta islands (DWR/USGS efforts are demonstrating successful soils accretion).
4. How do you define risk? There is a need for a discussion of the relative risks of possible failures (earthquake, failure, flood). Some ranking has been done using Army Corps of Engineers criteria.
5. The objective should be to "manage" risk or "spread" the risk, not reduce it. Look at both engineering and financial (insurance) methods to spread risk.
6. Relaxation of flood control rules would provide more water. Consider modification of the Army Corps rule curves.

ECOSYSTEM OBJECTIVES

1. The Ecosystem objectives have too many boxes.
2. Habitat diversity and connectivity should be the focus at the top of the objectives.
3. The objectives should include more explicit statements of habitat function rather than solely spatial distribution.
4. The objective for transport flows is too narrow with only juvenile fish listed. Change to "aquatic organisms."
5. How much science is incorporated in the objectives? Is there a consideration of the "do-ability" of the objectives? How would objectives be removed?
6. There is too much detail in the ecosystem objectives. The top boxes should be objectives for biodiversity and function. The detail of how much of each type of habitat will be considered in future phases.
7. In the top objective box add phrasing to "substantially improve...habitats"
8. List the specific habitats. All of them need to increase. The question is what degree of increase?
9. When do objectives become prioritized? When might some be eliminated?
10. What expertise will be involved in setting priorities for objectives or eliminating them?
11. Box C - Threatened and endangered species is not listed as part of objectives statement. Include threatened and endangered species objectives in the overall objectives box.
12. Clarify the tie between "restore" in the Mission Statement and "improve" in objectives box.
13. Reducing "entrainment" should be included as an objective. Also losses due to diversions and predation. Include losses across the Delta and once fish get across.
14. Keep objectives at a level that yields win-win solutions and allow agencies and negotiators flexibility. Avoid making the objectives too specific.

WATER QUALITY OBJECTIVES

1. There is no delineation between in and out of Delta use. Specify water quality ties to export or in Delta use.
2. Objectives should not be phrased so they capture what we are striving for. They can be prioritized, but shouldn't be removed.
3. B.1. needs further refinement regarding source of water. In Southern California there is currently no beneficial use for agriculture for MWD water. What happens if that beneficial use is added to the MWD Charter?
4. Pumping for export causes draw down which affects pumping for in Delta users. It also affects salinity intrusion.
5. Change B.3. to include concepts of dilution, timing, and salt management. We can move salts around but they can't be reduced.

Mission Statement**Comments During Morning Discussion**

1. Add language regarding "serving beneficial uses."
2. Phrase as "opportunities" for beneficial uses.
3. Ensure consistency - carry terms over from Mission to Objectives.
4. Add language to "Reduce conflicts among beneficial uses."
5. It is important to phrase it as "ecological health."
6. Use "establish ecological health."
7. Recognize that the systems are dependent.
8. "Improve water management to better serve beneficial uses."
9. "Restore" implies to some historic level.
10. Specify how much (substantial) improvement.
11. Restoration means to restore health or function - not historical conditions.
12. Need "Restore and maintain."
13. Use the concept of acceptable levels of desirable biota as opposed to the vague concept of "Ecological health."
14. "Provide adequate water quality" may result in degradation if we only try to meet standards. We should strive for what is achievable rather than seek the worst water that is permissible.
15. "Structure, composition, and function" is the definition of ecological health.
16. Add "no negative impacts from plan" to Mission.

Comments During Afternoon Discussion

1. Change "in the Bay-Delta system" to "of the Bay-Delta system."
2. Change "restore" to "optimize."

Mission Statement

3. Add "not cause impacts outside Bay-Delta system."
4. Change "better serve" to "ensure protection of."
5. Add "better meet beneficial uses."
6. We are not trying to improve all beneficial uses; only the specific ones at risk.
7. "To optimally protect" beneficial uses.
8. Does ecological health apply to the Delta and improving water management apply to the Bay-Delta system?
9. How are we defining beneficial uses? As listed in all codes?
10. Use "stakeholder interests" instead of beneficial uses to get away from legal definitions.
11. Beneficial uses are clearer because they have been defined.
12. Use "for the" rather than "to better serve."
13. "Restore" has an historical connotation. Use "ensure."
14. Use "reestablish," or "attain."
15. The mission statement does not match the geographic scope. Without a scope focusing on San Francisco Bay, the mission statement ("comprehensive plan") does not reflect the direction.
16. If we use "restore" it effectively captures the desire among fishermen to return to our "way of life."

Causes

1. Water hyacinth degrades habitat.
2. Need a system to respond to levee failure.

General Comments Bin**BIN - General**

1. Should "Drainage" fall under the Impact Issues? Isn't it also considered part of the problem?

BIN - Problem Statements

1. Maintain flexibility to respond to impacts due to global climate change.
2. Need long-term solution for levee problems.
3. Need to include non-habitat issues - biodiversity and integrity - in the problem statements. They are overarching concerns.

BIN - Objectives

1. Impacts on upstream/area of origin water supplies - overarching principle?
2. Mission Statement - the plan cannot have unacceptable impacts outside the Delta.
3. How will you rate level of risk? The Corps of Engineers has criteria. Or manage risk.
4. Too many boxes on ecosystem.
5. Ecosystem may be too detailed now.

Planning Process

1. Set the detailed work into the context of the big picture.
2. How are you going to consider the conditions established by the December 15th accord?
3. Make sure ecosystem actions "add up" to healthy ecosystem.
4. How do we incorporate increasing population and exotic species into the long-term plan?
5. Incorporating the problems of the San Francisco Bay will be critical to enhancing the durability of the solution.
6. The actions should be focused on creating certain habitat conditions and our performance measures should measure the habitat value or function.
7. The links of the upper estuary to San Pablo Bay are strong; consider including San Pablo Bay in the scope of the problem.
8. Have fewer, broader objectives to maintain flexibility.
9. The actions must be focused on habitat creation, but we need to establish now how we are going to know whether the actions are working and how we will respond if they are not.
10. The performance measures must reflect ecosystem functions.
11. Demonstration projects can help reduce uncertainty and measure performance.
12. Can we define an institutional scope and institutional performance measures for the project?
13. How will you be considering institutional issues associated with implementation?